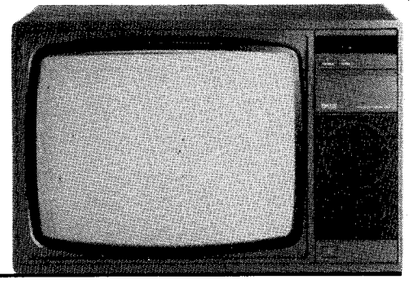
Colour television

22CS 3343/02Z/42Z
26CS 3372/02R/42R
26CS 3374/02Z/42Z

Service
Service
Service

A

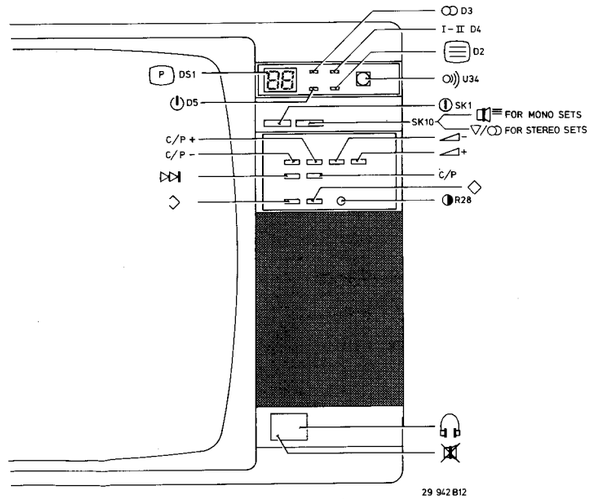


29 804A

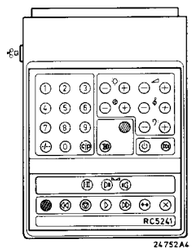
Service Manual

CHASSIS K35

REPAIR METHOD:
"DIGITAL CONTROLS TRDIV"
CIRCUIT DESCRIPTION:
"DIGITAL CONTROLS TRDIV"
+
FOR /42: 22AV1016/02



29 942 B12



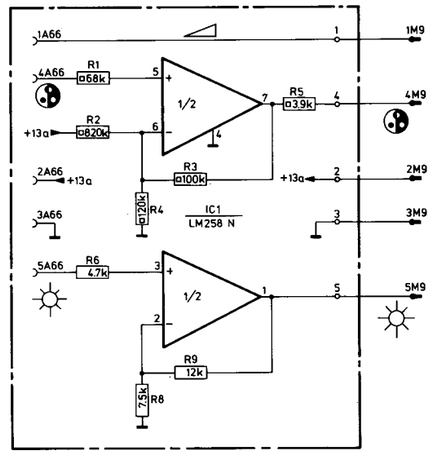
24752A4

RC 5242

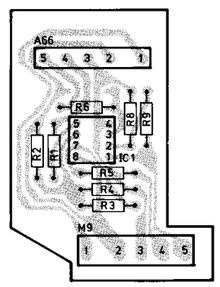
ONLY FOR /42

U47 CONTROL ADAPTATION PANEL 4822 212 21192

IC	
LM 258 N	4822 209 80866



23 728 B12/A



24036A20

THE CONTROL ADAPTATION PANEL IS PLACED BETWEEN SOCKET AND PLUG M9

22" 220 V~/90 W 26" 220 V~120 W	5 W Mono
75 Ω coax.	8-600 Ω stereo
22" - A56-540X 26" - A66-540X	⩾ 47 kΩ/1 V stereo

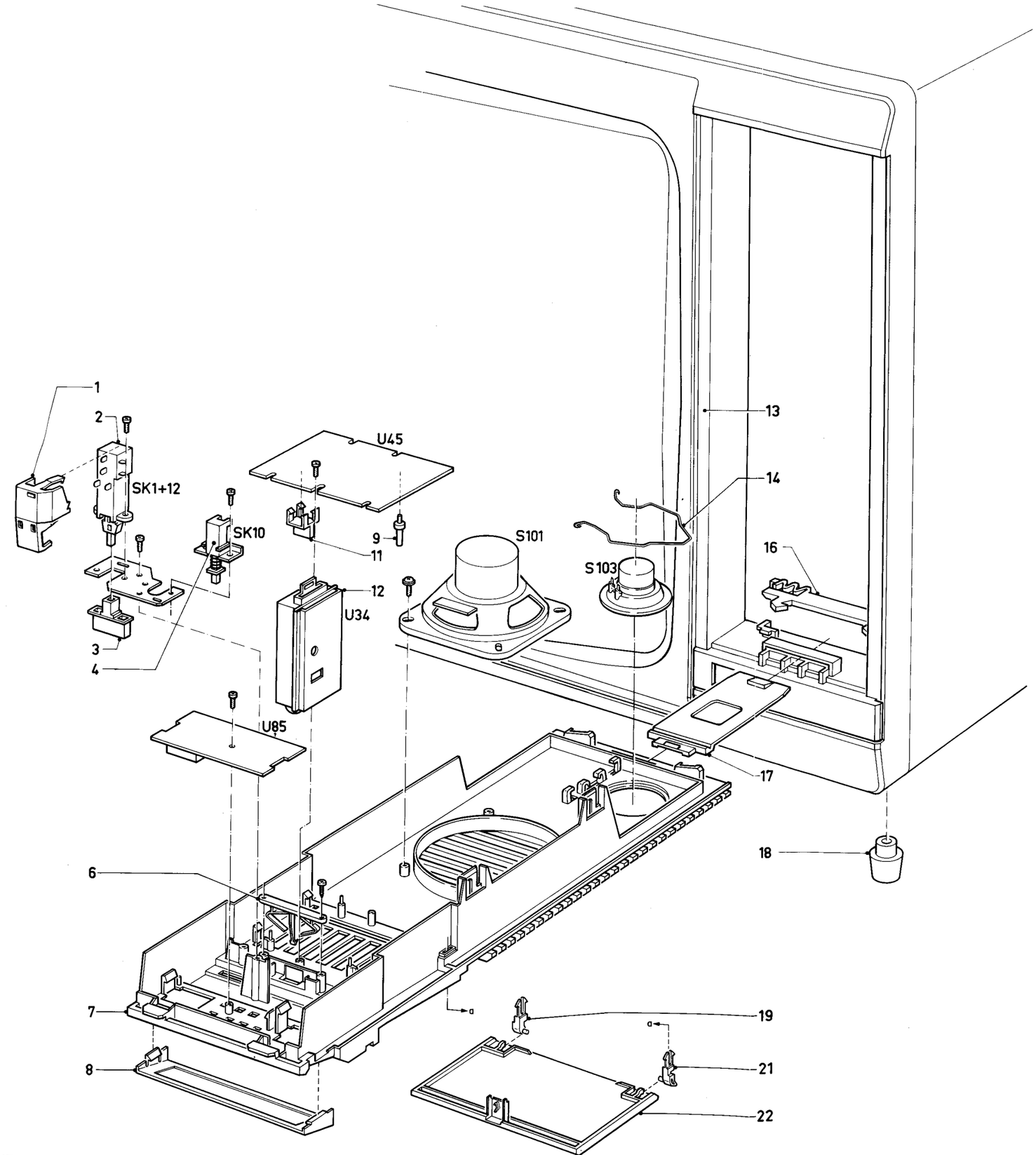
axbxc
22" -685x459x415 mm
26" -759x512x460 mm

V334LO/U342LO	UV414
VHFa : 47- 88 MHz	VHFa : 44- 88 MHz
b : 162-230 MHz	VHFb : 162-230 MHz
UHF : 470-862 MHz	UHF : 470-862 MHz

Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviço

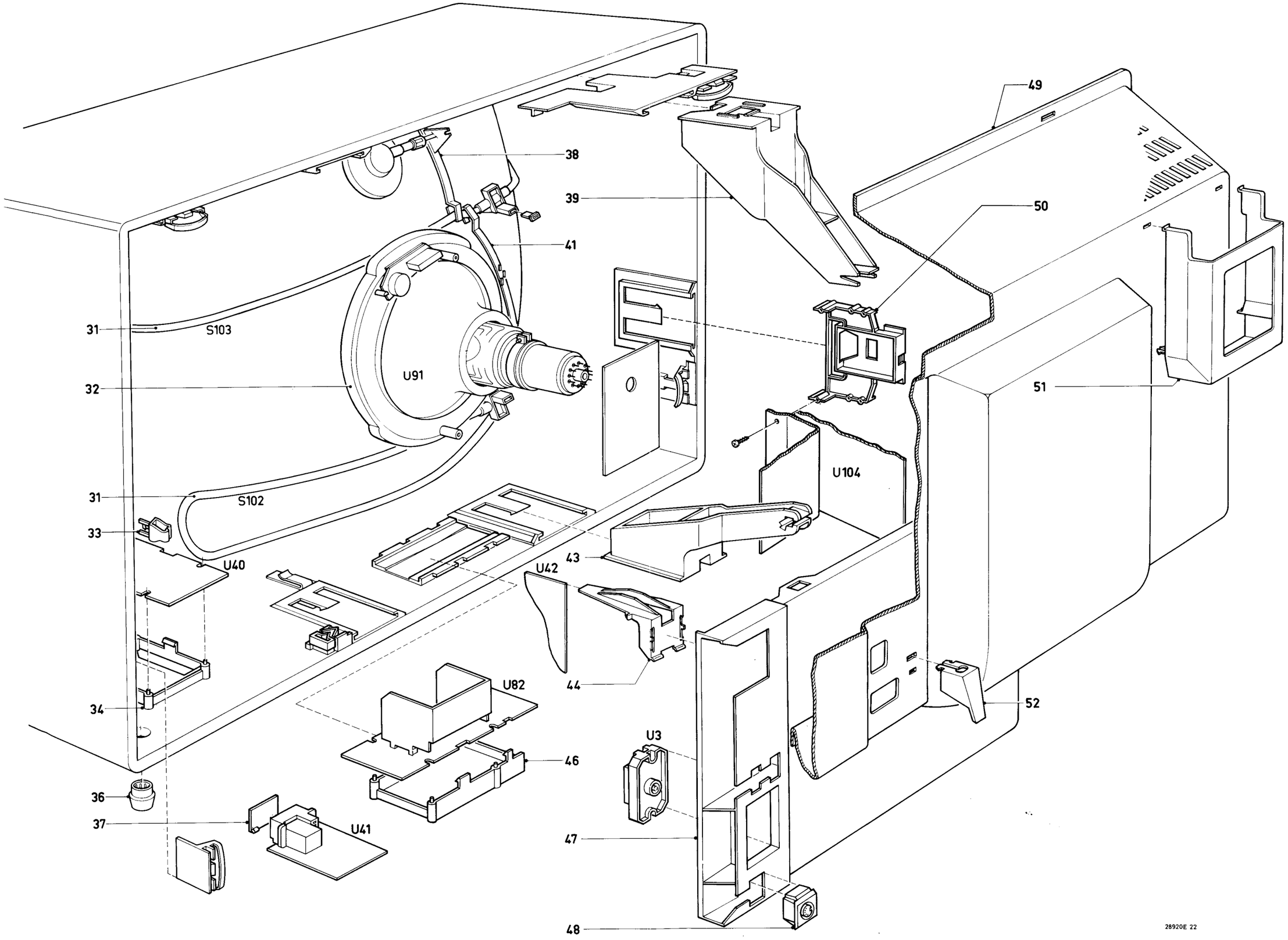
Subject to modification
4822 727 14165
Printed in The Netherlands

PHILIPS



Pos.	Code number	Description	Version
1	4822 432 10224	Safety cover	
2	4822 276 10718	Mains switch	
3	4822 411 60829	Knob	
4	4822 277 10614	Switch mono/stereo	
6	4822 404 30533	Lock for cover	
7	4822 459 60657	Front panel	22CS3343
7	4822 459 60684	Front panel	26CS3372
7	4822 459 60621	Front panel	26CS3374
8	4822 432 91095	Cover for display	
9	4822 413 31011	Contrast knob	
11	4822 410 22631	Knob (black)	
11	4822 410 22632	Knob (red)	
12	4822 212 20753	IR receiver	
13	4822 451 70177	Mask	22CS3343
13	4822 451 80682	Mask	26CS3372
13	4822 451 80665	Mask	26CS3374
16	4822 417 50144	Lock	
17	4822 417 50143	Hinge	
18	4822 462 10119	Table protectors	
19	4822 417 10717	Hinge (left)	
21	4822 417 10716	Hinge (right)	
22	4822 432 91116	Cover	22CS3343
22	4822 432 91186	Cover	26CS3372
22	4822 432 91051	Cover	26CS3374
31	4822 157 50848	Degaussing coil	(22")
31	4822 157 50799	Degaussing coil	(26")
32	4822 150 10125	Deflection unit	(22")
32	4822 150 10122	Deflection unit	(26")
33	4822 404 30235	Clip	
34	4822 691 10135	Support	
36	4822 462 10119	Table protectors	
37	4822 432 91117	Cover for headphone panel	22CS3343
37	4822 432 91185	Cover for headphone panel	26CS3372
37	4822 432 91049	Cover for headphone panel	26CS3374
38	4822 401 10641	Clamp	(22")
38	4822 404 30236	Clamp	(26")
39	4822 256 90367	Block	(22")
39	4822 404 30423	Block	(26")
41	4822 401 10642	Strip	
43	4822 256 90366	Block	(22")
44	4822 404 30457	Clip fix. U42	
46	4822 464 70168	Frame	
47	4822 404 30456	Bracket fix. U42	
48	4822 267 40201	5 pole DIN socket (180°)	
49	4822 438 20137	Rear panel	(22")
49	4822 438 30167	Rear panel	(26")
50	4822 464 70233	Holder for sound ampl.	
51	4822 432 10318	Case	
52	4822 404 30381	Hook	

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.


38
39
41
31
S103
U91
32
49
50
51
U104
31
S102
33
U40
43
U42
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U82
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U3
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U41
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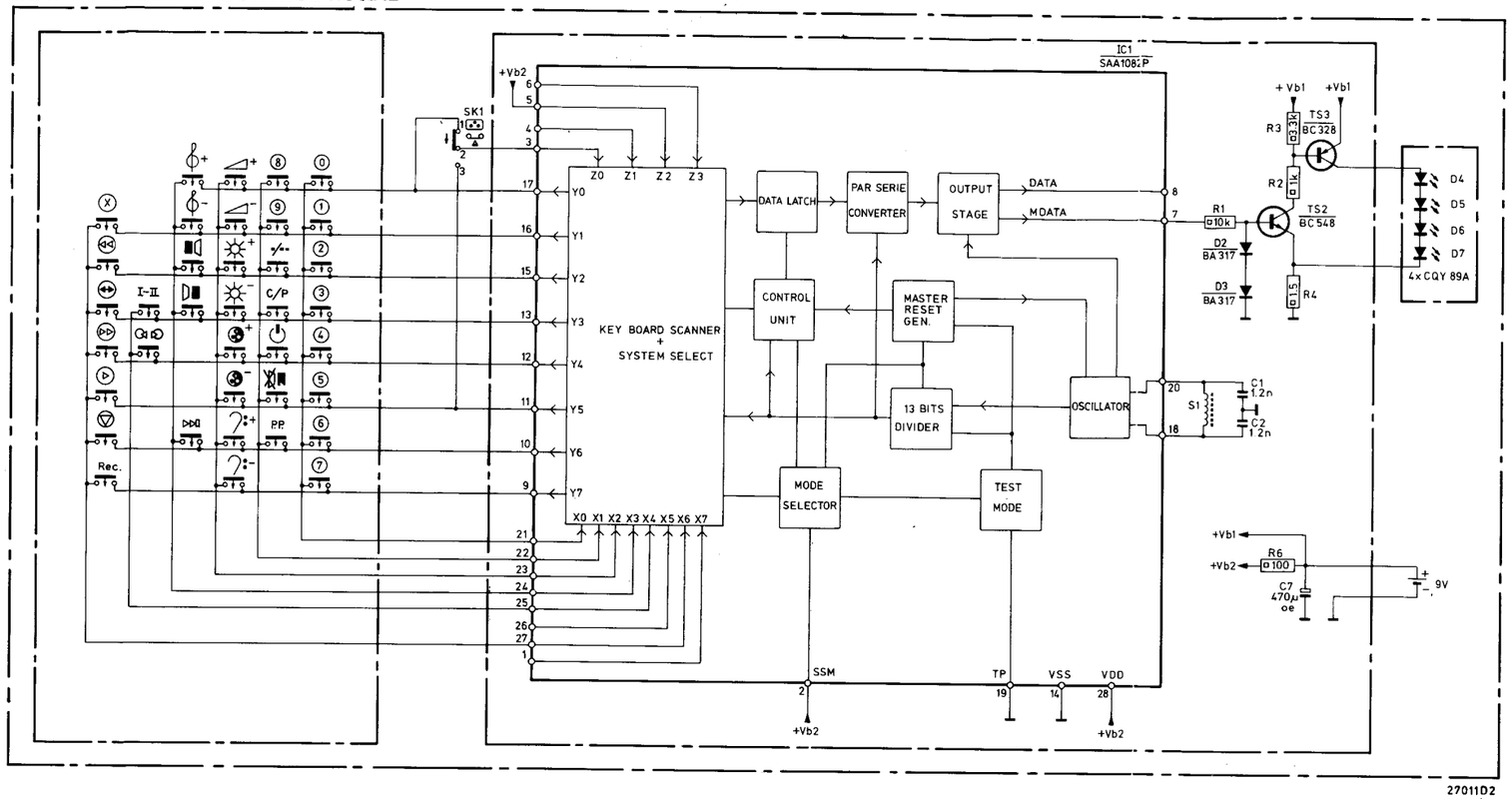
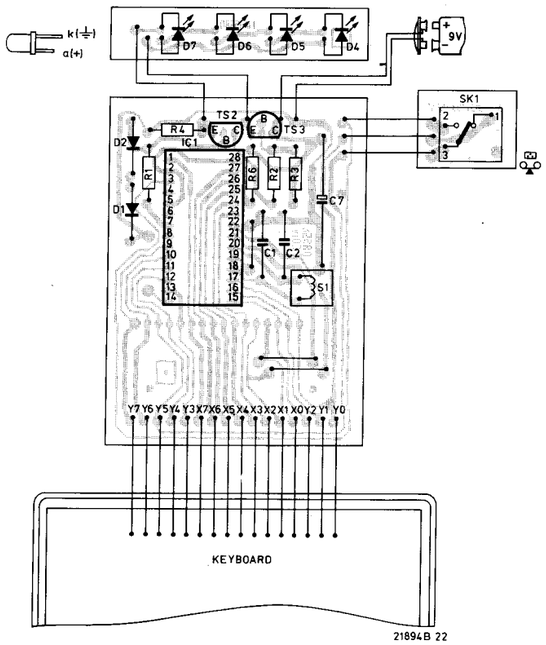
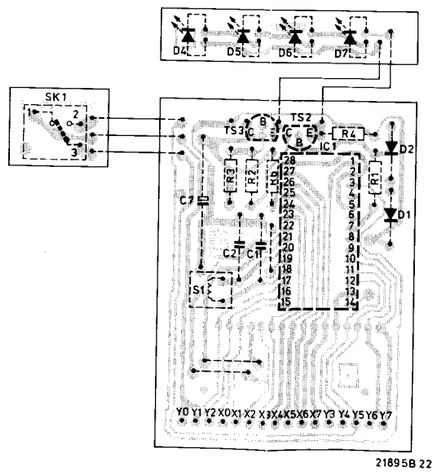
48
28920E 22

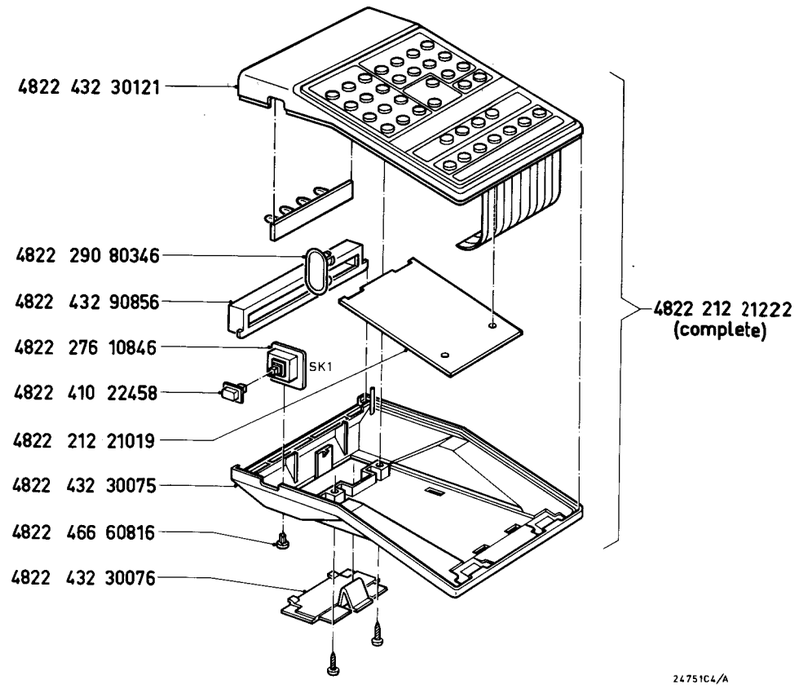
INFRA RED REMOTE CONTROL RC5242



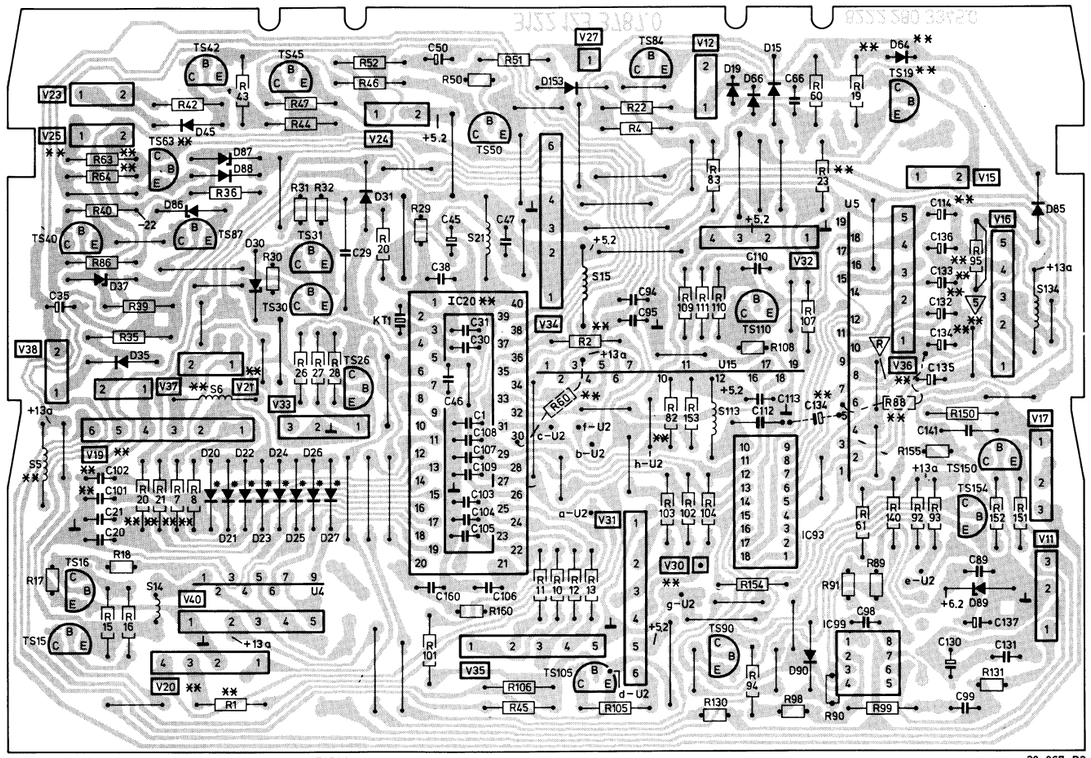
IC1	SAA1082P	4822 209 80613
BC328 BC548		4822 130 44104 4822 130 40938
BA317		4822 130 30847
CQY89A		4822 130 30949
C1 C2	1.2 nF 1.2 nF	4822 121 50439 4822 121 50439
S1		4822 156 20873







U42 TRD IV PANEL



* OPTIONAL ** FOR RELEVANT COMPONENTS SEE TABEL

28 867 D2

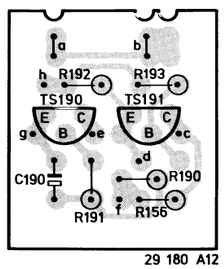
*

D20 - S-CHANNELS

D21 - ONLY UHF

D22 - I-CHANNELS

D23 - ONE DIGIT ENTRY



29 180 A12

*

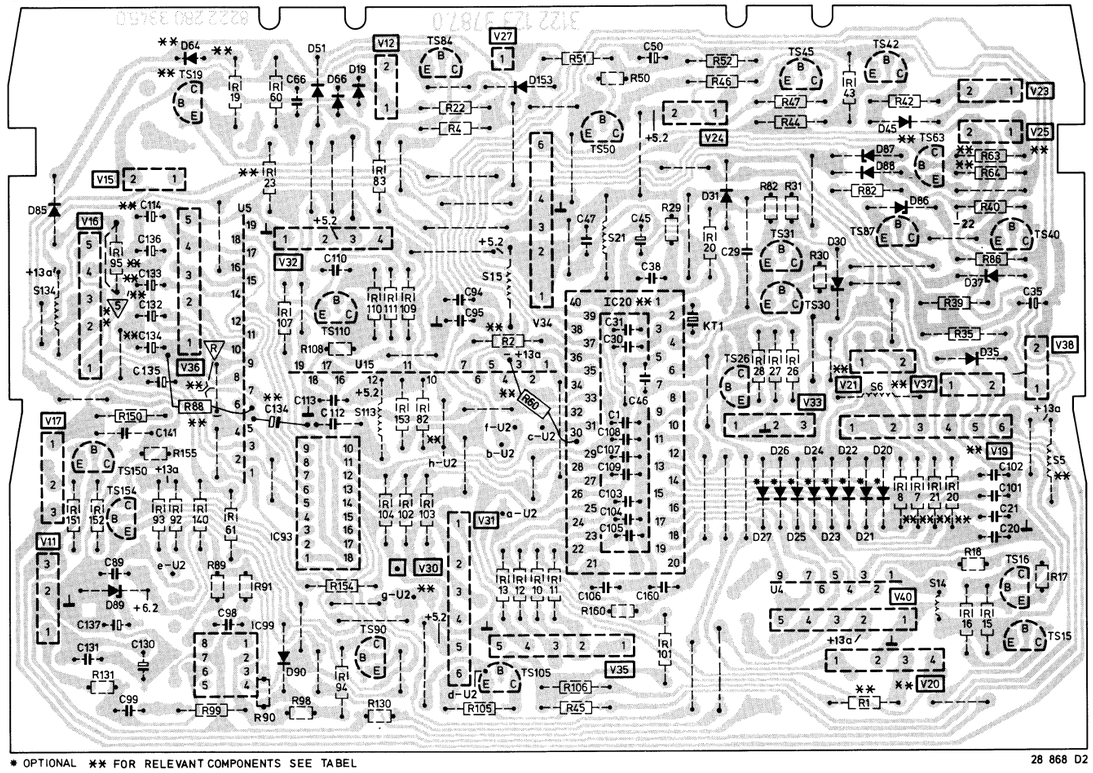
D24 - (teletext)

D25 - (teletext)

D26 - TRANSMITTER IDENTIFICATION

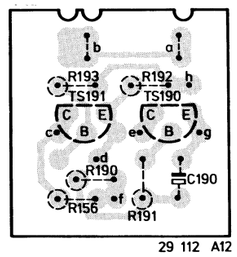
D27 - START SEARCH f_N

U42 TRD IV PANEL



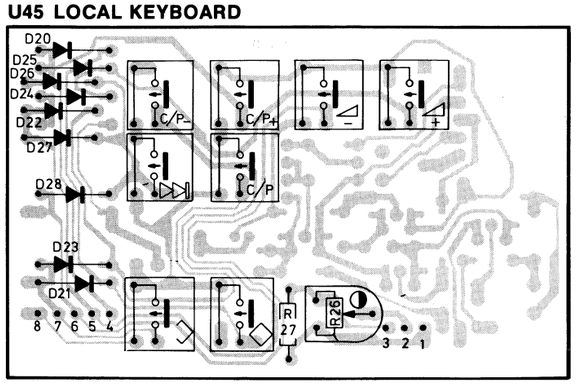
* OPTIONAL ** FOR RELEVANT COMPONENTS SEE TABEL

28 868 D2



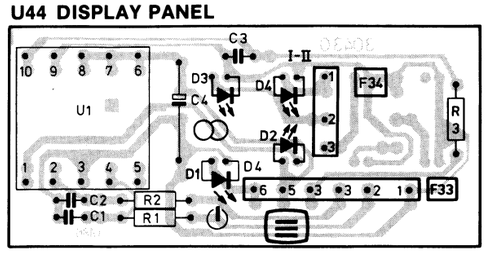
29 112 A12

U45 LOCAL KEYBOARD



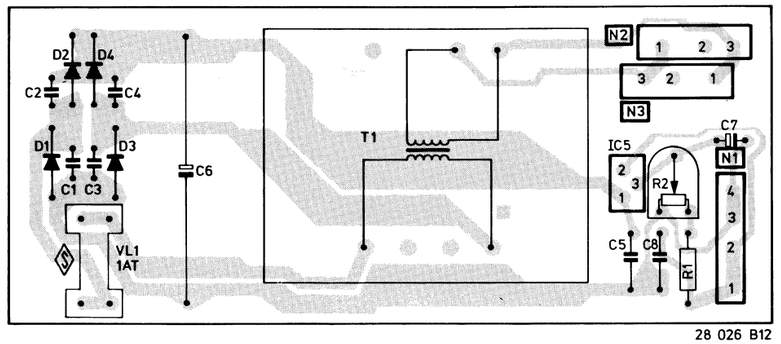
28409A2

U44 DISPLAY PANEL



28410A2

U88 AUX. POWER SUPPLY



28 026 B12

QUICK

INDICATI
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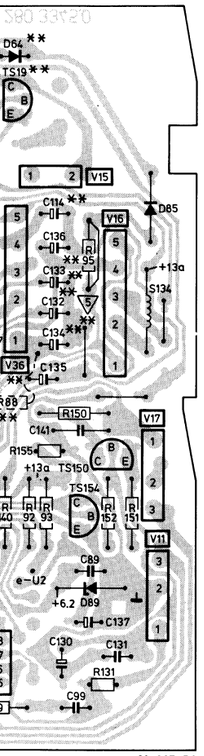
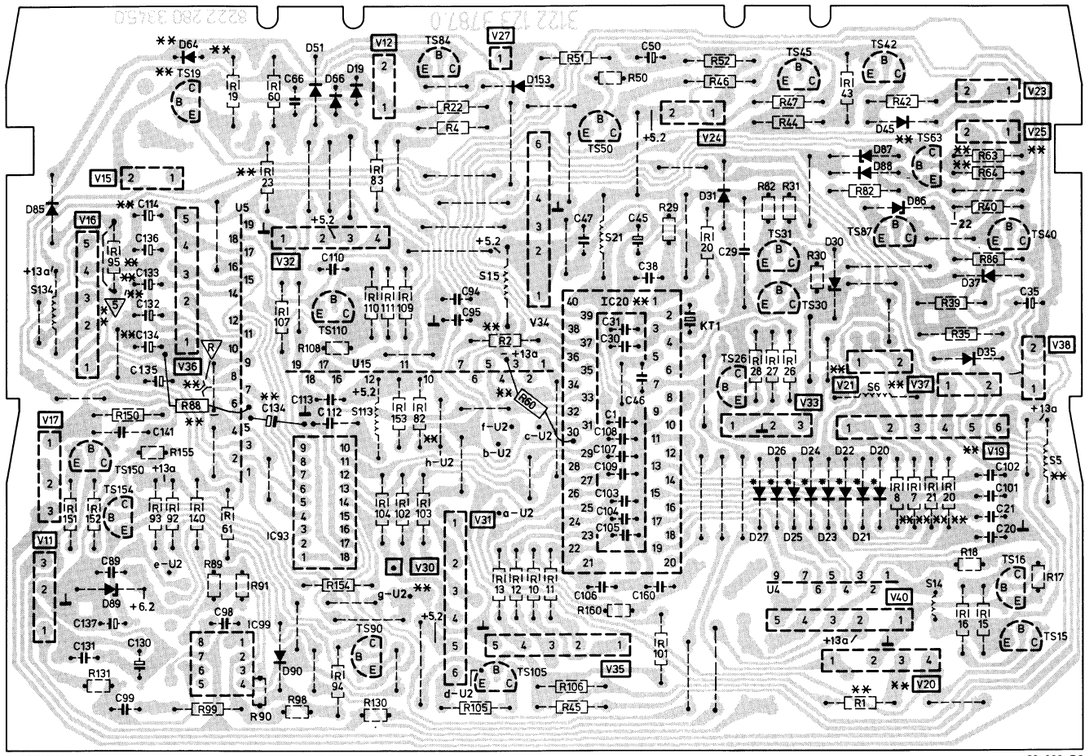
AUF ANZE



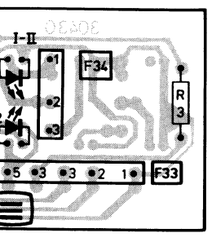
28 867 D2



28 868 D2

* OPTIONAL ** FOR RELEVANT COMPONENTS SEE TABEL

TTER IDENTIFICATION
EARCH f_N



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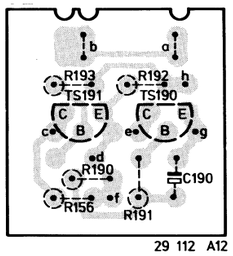
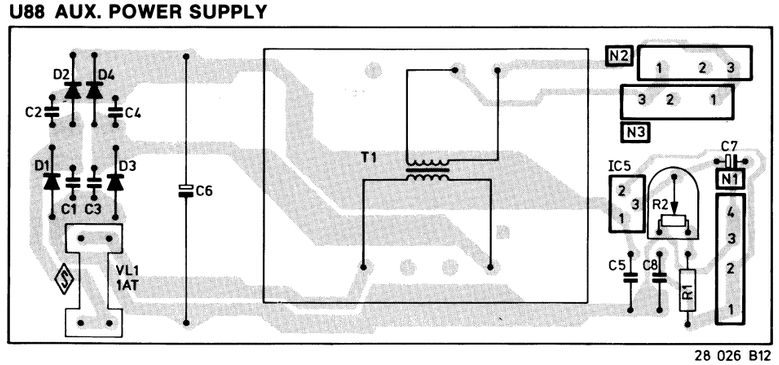


29 112 A12

U88 AUX. POWER SUPPLY



28 026 B12

QUICK DIAGNOSIS TABLE TRDIV

INDICATION ON DISPLAY AUF ANZEIGE	INCORRECT FUNCTIONING UNRICHTIGES FUNKTIONIEREN	CORRECT FUNCTIONING RICHTIGES FUNKTIONIEREN	POSSIBLE DEFECTIVE COMPONENT EVENTUELLE SCHADHAFTE KOMPONENTE
			RC TRANSMITTER FERNBEDIENUNGSSENDER RC RECEIVER FERNBEDIENUNGS-EMPFÄNGER TS26,TS105,IC20
E0			IC20 D15,D88 -22
E1			TS40,TS42,TS45 D35,D37,D38,D39,D86,D88 +12 +13a
E2			U34,TS26
NOT O.K			TS30,TS31,TS45 TS50,TS87,TS105 D30,D31 IC20
NOT O.K			U32
O.K			U5
O.K			IC93
O.K			TS90,TS110 TS150,TS154 D90,D153 U2,U4 +6.2 +33a

28 833 C12/218

CS 82 266

DIAGRAM – SCHALTBILD – SCHEMA C

U7 — IF SOUND. FI AUDIO

STEREO MATRIX IDENTIFICATION. MATRICE STEREO IDENTIFICAZIONE

U1

U2 IDENTIFICATION IDENTIFICAZIONE

U3

U40

U41

U104 — CONTROL AMPLIFIER. AMPLIFICATORE DI CONTROLLO

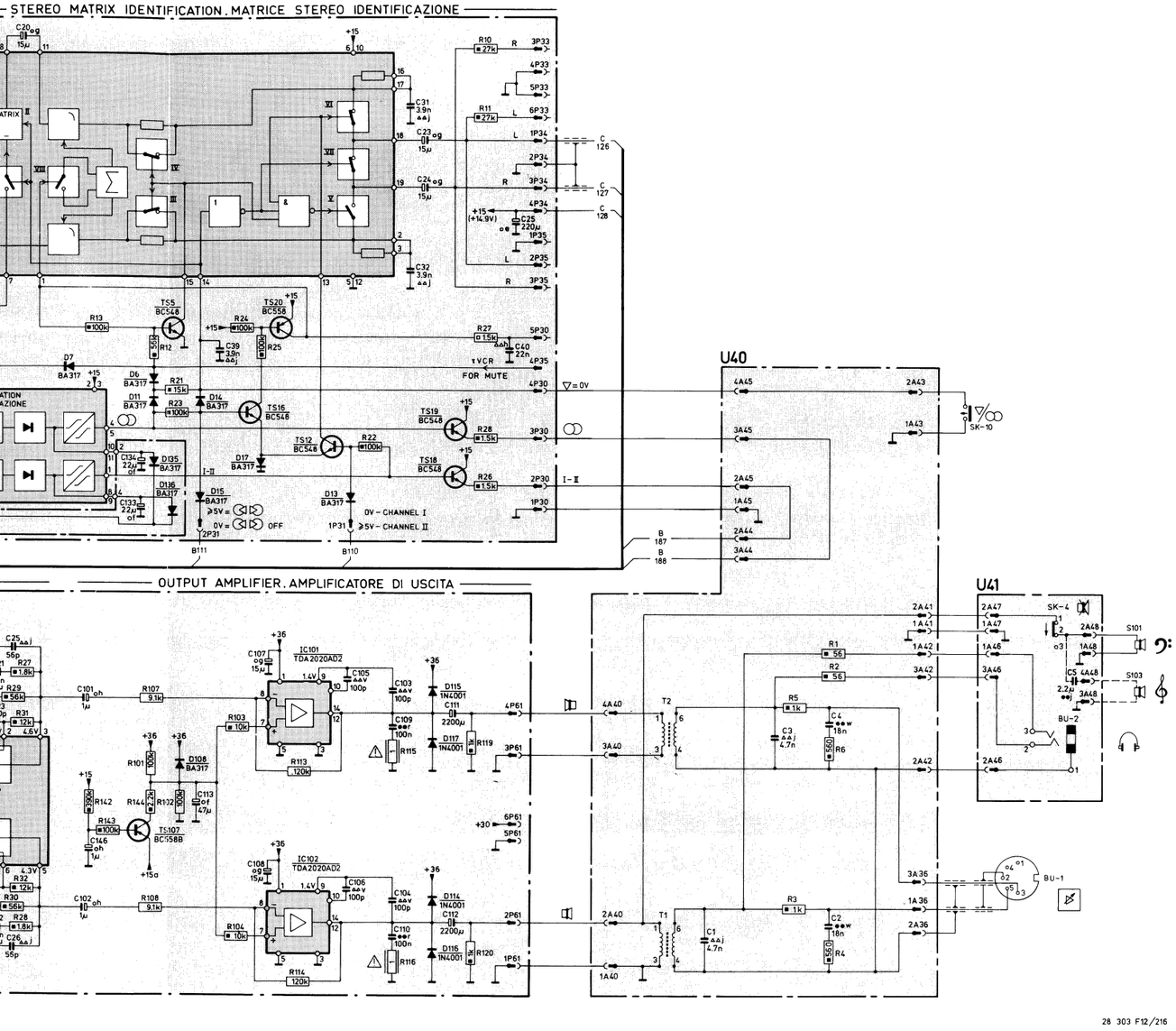
OUTPUT AMPLIFIER. AMPLIFICATORE DI USCITA

0= ○ 1= ●	I	II	III	IV	V	VI	VII	VIII
MONO	0	0	1	1	0	1	1	1
STEREO	1	1	1	1	1	1	0	1
MONO I	0	0	1	1	0	1	1	1
MONO II	0	0	1	1	1	0	1	0
VCR	0	0	0	0	1	1	0	1

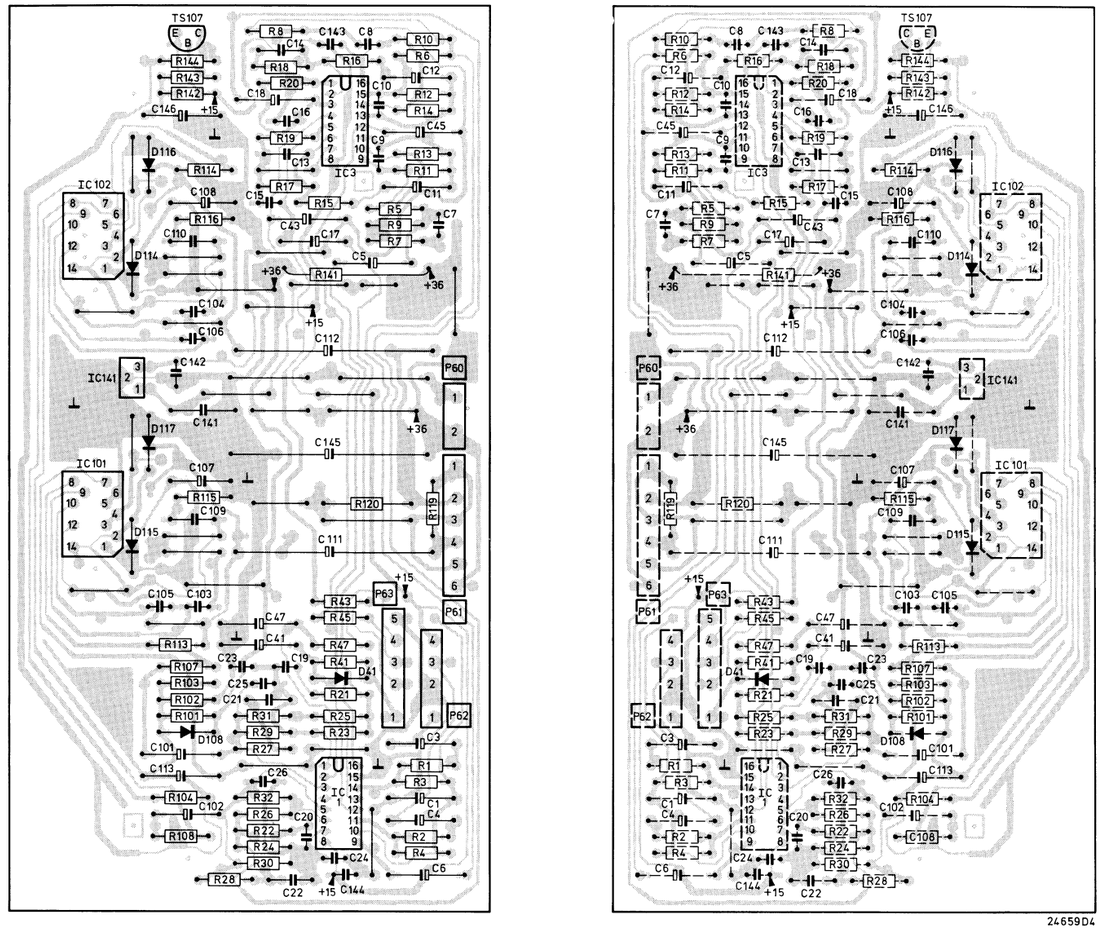
28 303 F12/216

U104 STREO SOUN

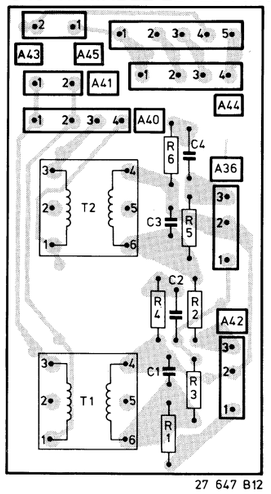
U40 VARIABLE LEV

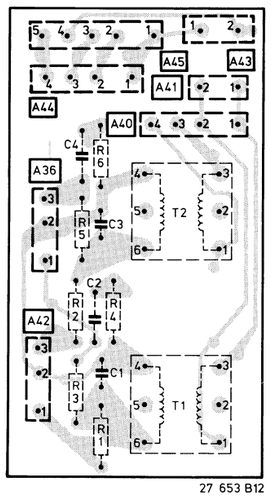


U104 STREO SOUND OUTPUT

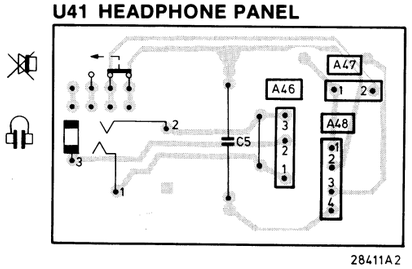


U40 VARIABLE LEVEL PANEL

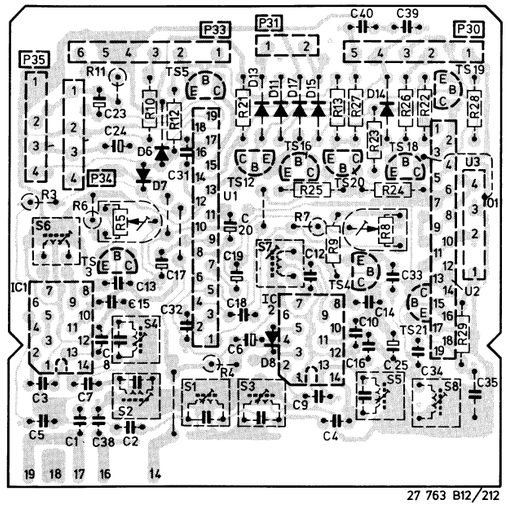




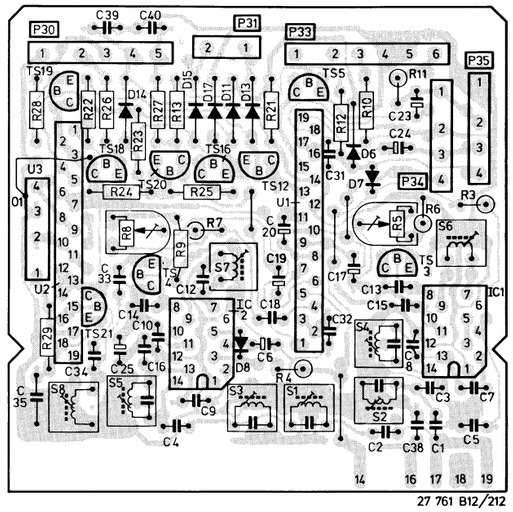
U41 HEADPHONE PANEL



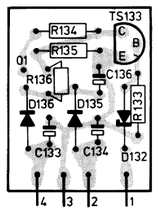
U7 STERO DECODER



27 763 B12/212



27 761 B12/212



28 943 A12

GB

ALIGNING STEREO DECODER U7

When the aligning instructions refer to a generator signal, the signal originating from colour test-pattern generator PM5519GX is meant.

1. The 5,5 MHz audio section

Apply a transmitter or generator signal of which the sound carrier is frequency modulated (at e.g. 1 kHz).
Select the mono position on the generator.
Adjust S2 and S4 for maximum sound volume.
Subsequently, adjust S6 for minimum interference in the sound.

2. The 5,742 MHz audio section

a. Apply a transmitter signal with 2 sound carriers.
Both sound carriers should be frequency modulated (at e.g. 1 kHz) and the 2nd sound carrier should be provided with the pilot signal for the 2nd language.
Select the stereo position on the receiver's stereo/mono switch SK2 and switch the TV receiver to mono-channel II position by means of key "I-II" on the remote control transmitter.

Note:
If the set is switched on from the "stand-by" mode the set will be in the "mono-channel I" mode.

b. Or apply a generator signal.
Select the stereo position on the generator and depress key "1 (L), 1+2 (R)".

Subsequently, adjust S1, S3 and S5 for maximum sound volume and S7 for minimum interference in the sound.

3. Channel separation

Apply a generator signal.
Select the stereo position on the generator and depress key "1 (L), 1+2 (R)".
Select the stereo position on the receiver's mono/stereo switch SK2.
Connect an oscilloscope to pin 1 of connector P34.
Adjust R8 for minimum signal on pint 1 of connector P34.

4. Output voltage on mono-channel I/mono-channel II

Apply a generator signal.
Select the 2nd language position on the generator by depressing key "1 (L), 1+2 (R)".
Select the stereo position on the receiver's mono/stereo switch SK2.
Connect an oscilloscope to pin 1 of connector P34.
Select the mono-channel II position on the receiver by means of key "I-II" on the remote control transmitter.
Note the amplitude of the signal on pin 1 of connector P34.
Select the mono-channel I position on the receiver by depressing once again key "I-II" on the remote control transmitter.
Adjust R5 so that the amplitude of the signal on pin 1 of connector P34 equals the value noted.

NL

AFREGELEN STEREO DECODER U7

Daar waar bij de afregelingen sprake is van een generator-signaal is de kleurenpatroongenerator PM5519GX gebruikt.

1. Het 5,5 MHz geluidsgedeelte

Voer een zender- of generatorsignaal toe, waarvan de geluidsdraaggolf gemoduleerd is met een frekwentie (bijv. 1 kHz).
Zet de generator in de stand mono.
Regel S2 en S4 af op maximale geluidssterkte. Regel vervolgens S6 af op minimale storing in het geluid.

2. Het 5,742 MHz geluidsgedeelte

a. Voer een zendersignaal toe met 2 geluidsdraaggolven, waarvan de geluidsdraaggolven gemoduleerd zijn met een frekwentie (bijv. 1 kHz) en de 2e geluidssdraaggolf voorzien is van het pilootsignaal voor de 2e taal.
Zet op het apparaat de stereo/mono schakelaar SK2 in de positie stereo en met behulp van de toets "I-II" op de afstandsbediening het apparaat in de stand "mono-kanaal II".

N.B.
Indien het apparaat vanuit de stand-by positie ingeschakeld wordt, dan bevindt het apparaat zich in de stand "mono-kanaal I".

b. Of voer een generatorsignaal toe.
Zet de generator in de stand stereo en druk de toets "1 (L), 1+2 (R)" in.

Regel vervolgens S1, S3 en S5 af op maximale geluidssterkte en S7 op minimale storing in het geluid.

3. Kanaalscheiding

Voer een generatorsignaal toe.
Zet de generator in de positie stereo en druk de toets "1 (L), 1+2 (R)" in.
Zet het apparaat met behulp van de mono/stereo schakelaar SK2 in de positie stereo. Sluit een oscillograaf aan op punt 1 van plug P34.
Regel R8 zodanig af dat het signaal op punt 1 van plug P34 minimaal is.

4. Uitgangsspanning mono-kanaal I/mono-kanaal II

Voer een generatorsignaal toe.
Zet de generator in de positie 2nd language door de toets "1 (L), 1+2 (R)" in te drukken.
Zet op het apparaat de mono/stereo schakelaar SK2 in de positie stereo. Sluit een oscillograaf aan op punt 1 van plug P34.
Zet het apparaat vervolgens met behulp van de toets "I-II" op de afstandsbediening in de stand "mono-kanaal II". Noteer de amplitude van het signaal op punt 1 van plug P34.
Zet het apparaat in de stand "mono-kanaal I" door de toets "I-II" van de afstandsbediening opnieuw in te drukken.
Regel R5 zo af, dat de amplitude van het signaal op punt 1 van plug P34 gelijk is aan de genoteerde waarde.

F

AJUSTAGES DECODEUR STEREO U7

Aux ajustages où il est question d'un signal de générateur, il a été fait usage du générateur de mire de couleur PM5519GX.

1. Section son 5,5 MHz

Appliquer un signal d'émetteur et de générateur où la porteuse son est modulée à une fréquence d'1 kHz, par exemple.
Positionner le générateur en mono.
Ajuster S2 et S4 à une intensité sonore maximale.
Ajuster ensuite S6 à un dérangement minimum dans le son.

2. Section son 5,742 MHz

a. Appliquer un signal d'émetteur à deux porteuses son dont l'une doit être modulée à une fréquence de 1 kHz, par exemple et la seconde devant être pourvue d'un signal pilote pour la seconde langue.
Sur l'appareil, mettre le commutateur stéréo/mono SK2 en position stéréo et à l'aide de la touche "I-II" de la commande à distance, régler en position "Canal-mono II".

N.B.:
Si l'appareil est enclenché à partir de la position de mise en veille, l'appareil est positionné sur "canal mono I".

b. Ou appliquer un signal de générateur.
Positionner le générateur sur stéréo et enfoncer la touche "1 (L), 1+2 (R)".

Ajuster ensuite S1, S3 et S5 pour une intensité sonore maximum et S7 pour une interférence minimum dans le son.

3. Séparation des canaux

Appliquer un signal de générateur.
Positionner le générateur sur "stéréo" et enfoncer la touche "1 (L), 1+2 (R)".
Par le commutateur SK2 mono/stéréo, commuter sur stéréo.
Brancher un oscillographe sur le point 1, fiche P34.
Ajuster R8 pour que le signal sur le point 1 de la fiche P34 soit au minimum.

4. Tension de sortie canal mono I/canal mono II

Appliquer un signal de générateur.
Positionner le générateur sur "2ième langue" en enfonçant la touche "1 (L), 1+2 (R)".
Sur l'appareil, positionner le commutateur mono/stéréro SK2 sur stéréo. Brancher un oscillographe sur le point 1 de la fiche P34.
Sur la commande à distance, positionner par la touche "I-II" l'appareil sur "canal mono II".
Noter l'amplitude du signal sur le point 1 de la fiche P34.
Positionner l'appareil sur "canal mono I" en réenfonçant la touche "I-II" de la commande à distance.
Ajuster ensuite R5 pour que l'amplitude du signal sur le point 1 de P34 soit égale à la valeur notée.

(D)

EINSTELLUNGEN DES STEREODECODERS U7

Wo beim Abgleichen von einem Generatorsignal die Rede ist, wurde der Farbmustergenerator PM5519GX eingesetzt.

1. 5,5-MHz-Tonteil

Ein Sender- oder Generatorsignal dessen Tonträger mit einer Frequenz (z.B. 1 kHz) moduliert ist, einspeisen.
Generator in Monostellung bringen.
S2 und S4 auf Höchst-Lautstärke abgleichen.
Anschliessend S6 auf Mindeststörung im Ton abgleichen.

2. 5,742-MHz-Tonteil

a. Ein Sendersignal mit 2 Tonträgern zuführen.
Beide Tonträger sind mit einer Frequenz (z.B. 1 kHz) moduliert und der zweite Tonträger führt das Pilotsignal für die zweite Sprache.
Am Gerät den Stereo/Mono-Schalter SK2 in die Stereostellung bringen und mit Hilfe der Taste "I-II" auf der Fernbedienung das Gerät in die Stellung "Mono-Kanal II" bringen.

Achtung!
Wenn das Gerät von der Bereitschaftsstellung her eingeschaltet wird, befindet sich das Gerät in der Stellung "Mono - Kanal I".

b. Oder ein Generatorsignal zuführen.
Generator in Stereostellung bringen und die Taste "1 (L), 1+2 (R)" drücken.
Dann S1, S3 und S5 auf Höchst-Lautstärke abgleichen und S7 auf Mindeststörung im Ton abgleichen.

3. Kanaltrennung

Ein Generatorsignal zuführen.
Generator in Stereostellung bringen und Taste "1 (L), 1+2 (R)" betätigen.
Gerät mit Hilfe des Mono/Stereo-Schalters SK2 in die Stereostellung bringen. Oszilloskop an Punkt 1 von Stecker P34 schalten.
R8 dahin einstellen, dass das Signal an Punkt 1 von Stecker P34 Mindestwert aufweist.

4. Ausgangsspannung an Mono-Kanal I/Mono-Kanal II

Ein Generatorsignal zuführen.
Generator in die Stellung "second language" (zweite Sprache) bringen durch betätigung der Taste "1 (L), 1+2 (R)".
Am Gerät den Mono/Stereo-Schalter SK2 in Stereostellung bringen. Oszilloskop schalten an Punkt 1 von Stecker P34.
Dann das Gerät mit Hilfe der Taste "I-II" an der Fernbedienung in die Stellung "Mono-Kanal II" bringen.
Amplitude des Signals an Punkt 1 von Stecker P34 notieren.
Gerät in die Stellung "Mono-Kanal I" bringen durch wiederholtes Drücken des Taste "I-II" der Fernbedienung. R5 dahin einstellen, dass die Amplitude des Signals an Punkt 1 von Stecker P34 gleich dem notierten Wert ist.

(I)

REGOLAZIONI DECODATORE U7

Nelle regolazioni ove si tratta di un segnale di generatore è stato usato un generatore di segnale colori PM5519GX.

1. Sezione suono 5,5 MHz

Fornire un segnale di emettitore e di generatore di cui il porta suono viene modulato con una frequenza di 1 kHz, per esempio.
Positionnare il generatore su mono.
Regolare S2 e S4 per un intensità sonora massima.
Quindi regolare S6 per un interferenza minima del suono.

2. Sezione suono 5,742 MHz

Fornire ,

a. un segnale di emettitore con due portanti suono di cui l'una viene modulata con una frequenza di 1 kHz, per esempio e la seconda è provvista di un segnale pilota per la seconda lingua.
Regolare il commutatore mono/stereo SK2 sull'apparecchio in posizione stereo per mezzo del tasto I-II sul tele comando, l'apparecchio esseudo sul "canale-mono II".

N.B.
Se l'apparecchio fosse avviato dalla posizione di attesa, l'apparecchio è posizionato su "canala-mono I".

b. Un segnale di generatore. Posizionare il generatore in stereo e premere il tasto "1 (L), 1+2 (R)".
Quindi regolare S1, S3 e S5 su di un intensité del suono massima e S7 per un interferenza minima del suono.

3. Separazione dei canali

Fornire un segnale di generatore.
Posizionare il generatore su di "stereo" e premere il tasto "1 (L), 1+2 (R)".
Grazie al commutatore SK2 mono/stereo, commutare su stereo.
Collegare un oscillografo sul punto 1, spina P34.
Regolare R8 in modo che il segnale sul punto 1 della spina P34 sia al minimo.

4. Tensione d'uscita canale mono I/canale mono II

Fornire un segnale di generatore. Posizionare il generatore su "2da linga" nel premere il tasto "1 (L), 1+2 (R)".
Sull'apparecchio, posizionare il commutatore mono/stereo SK2 su di stereo. Collegare un oscillografo al punto 1 della spina P34.
Sul telecomando, posizionare per mezzo del tasto "I-II" l'apparecchio sul canale "mono II".
Prendere appunti dell'amplitudine del segnale sul punto 1 della spina P34.
Posizionare l'apparecchio sul canale "mono I" premendo di nuovo il tasto "I-II" del telecomando.
Quindi regolare R5 in modo che l'amplitudine del segnale sul punto 1 di P34 sia simile al valore notato.

DIAGRAM-SCHALTBILD-SCHEMA A

CHANNEL SELECTOR
KANALWAHLER
SELETTORE CANALE

IF AMPL.+DET.+AGC
ZF VERST.+DEM.+AVR
AMPL. FI+RIVEL.+CAG

CHROMINANCE+LUMINANCE
FARBART+LEUCHTDICHTE
CROMINANZA+LUMINANZA

SUPPLY
SPEISUNG
ALIMENTAZIONE

SYNCHRONISATION
SINCRONIZZAZIONE

VERTICAL
VERTIKAL
VERTICALE

IN CASE OF UV414 TUNER
ALL'USO DEL SELETTORE UV414

* IN CASE OF UV414 TUNER
ALL USO DEL SELETTORE UV414
R121 → 330Ω
R122 → 82Ω
R123 → NOT PRESENT
C122 → 56p

B+C

CHROMINANCE + LUMINANCE
FARBART + LEUCHTDICHTE
CROMINANZA + LUMINANZA

R-G-B AMPLIFIER
R-G-B VERSTÄRKER
AMPLIFICATORE R-V-B

SUPPLY
SPEISUNG
ALIMENTAZIONE

VERTICAL
VERTIKAL
VERTICALE

HORIZONTAL
ORIZZONTALE

EAST - WEST
OST - WEST
EST - OVEST

SEE SERVICE NOTES
VEDERE NOTE SU DOCUMENTAZIONE

K35

27266 F 4/235

CS 84 279

DIAGRAM-SCHALTBILD-SCHEMA B

U80 IR TRANSMITTER
TRANSMETTORE TELECOMANDO

U34 IR RECEIVER
RICEVITORE TELECOMANDO

U45

U42

U82

U44

U15

U2

U4

U1

IC20 UPD8050C-163

IC93 SAB3034

INPUT CONTROL

INGRESSO REGOLAZIONE

SYSTEM CONTROL SELETTORE SISTEMA

PR. "0" LATCH

CHANNEL CONTROL

CONTROLLO DI CANALI

MODE TEST

BAND SELECTION

SELETTORE DI BANDA

DATA PROCESSOR

PROCESSORE DATI

POWER ON RESET

RESET ALL' ACCENSIONE

VOLTAGE DETECTOR

RIVELATORE DI STATO

STATUS DETECTOR

RIVELATORE DI TENSIONE

TRANSMITTER INDENT

TRANSMET.

AFC CONTROL

CONTROLLO CAF

MEMORY CONTROL

MEMORIA DI REGOLAZIONE

G 6MHz

A&T CLOCK

D-BUS RECEIVER

RECIVITORE D-BUS

REFERENCE COUNTER

CONTATORE DI RIFERMENTO

G 400kHz

DATA BUFFER DEI DATI

FREQUENCY BUFFER DI FREQUENZA

FREQUENCY COUNTER

CONTATORE DI FREQUENZA

TUNING CONTROL

CONTATORE DI SINTONIA

CLOCK SWITCH

COMMUTATORE DI CLOCK

:5

ANALOGUE CONTROL

CONTROLLO ANALOGICO

ANALOGUE REGISTER

REGISTRO ANALOGICO

ADDRESS DECODER

DECOD. INDIRIZZI

SELECTOR

DECOD. DI SELEZIONE

READ WRITE ERASE

MEMORY 100 x 14 BITS

MEMORIA 100 x 14 BITS

DATA REGISTER

REGISTRO DATI

SEPARATORE I/O BUFFER

CLOCK OSCILLATOR

OSCILLATORE DI CLOCK

DECODER + DISPLAY DRIVER

DECODIFICATORE + PILOTA DISPLAY

AGC-OFF

AFC-ON

RC-5 DATA

ACK

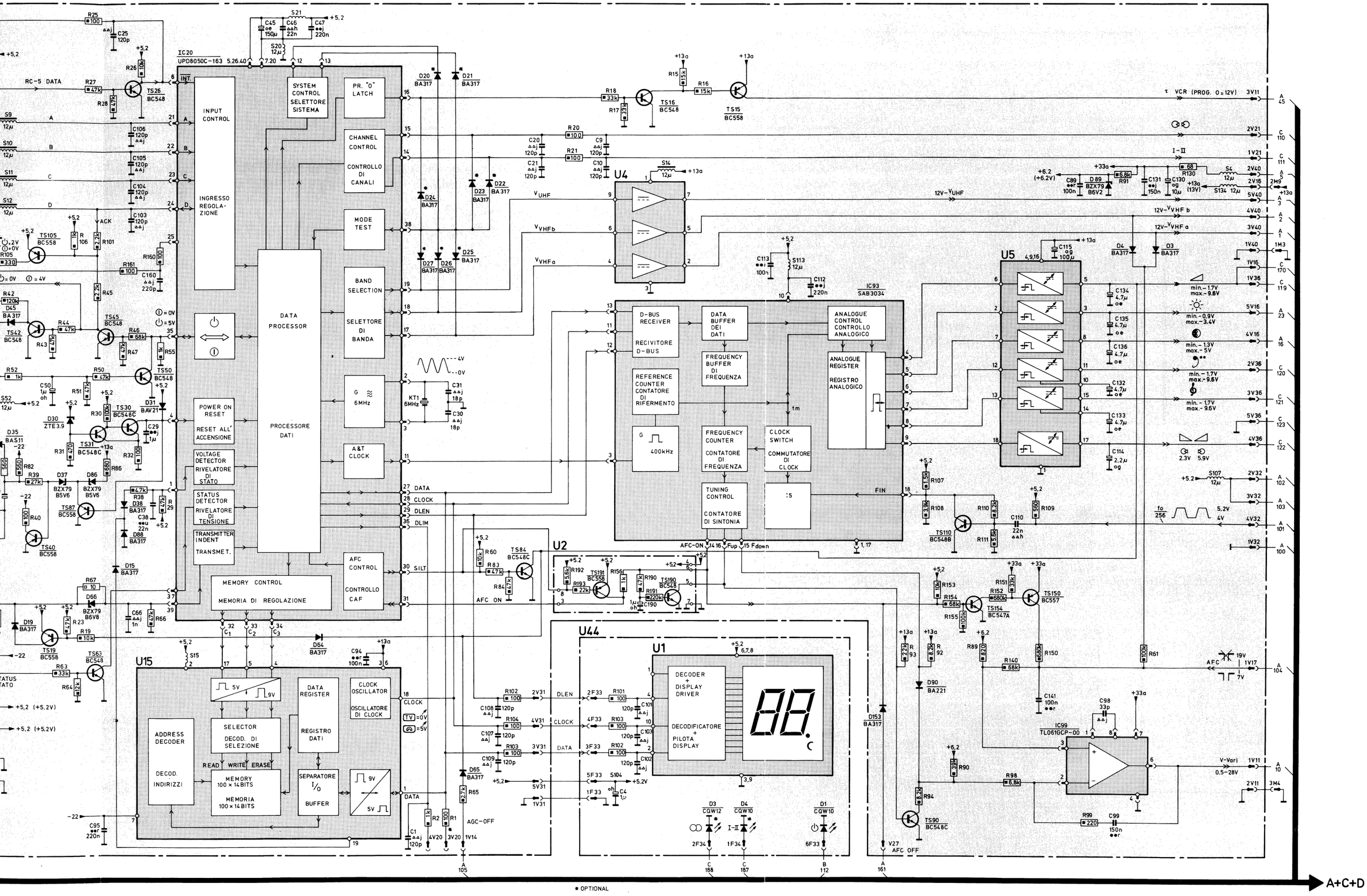
STATUS

STATO

220V~

* OPTIONAL

CS 81 273


IC20 UPD8050C-163 5.26.40
INPUT CONTROL
INGRESSO REGOLAZIONE
SYSTEM CONTROL SELETTORE SISTEMA
PR. "0" LATCH
CHANNEL CONTROL
CONTROLLO DI CANALI
MODE TEST
BAND SELECTION
SELETTORE DI BANDA
DATA PROCESSOR
PROCESSORE DATI
POWER ON RESET
RESET ALL' ACCENSIONE
VOLTAGE DETECTOR
RIVELATORE DI STATO
STATUS DETECTOR
RIVELATORE DI TENSIONE
TRANSMITTER INDENT
TRANSMET.
AFC CONTROL
CONTROLLO CAF
MEMORY CONTROL
MEMORIA DI REGOLAZIONE
U4
U5
U2
U44
U1
U15
IC93 SAB3034
D-BUS RECEIVER
RECIVITORE D-BUS
DATA BUFFER DEI DATI
FREQUENCY BUFFER DI FREQUENZA
REFERENCE COUNTER CONTATORE DI RIFERMENTO
FREQUENCY COUNTER
CONTATORE DI FREQUENZA
CLOCK SWITCH
COMMUTATORE DI CLOCK
TUNING CONTROL
CONTATORE DI SINTONIA
ANALOGUE CONTROL CONTROLLO ANALOGICO
ANALOGUE REGISTER
REGISTRO ANALOGICO
DECODER + DISPLAY DRIVER
DECODIFICATORE + PILOTA DISPLAY
ADDRESS DECODER
DECOD. INDIRIZZI
SELECTOR
DECOD. DI SELEZIONE
MEMORY 100 x 14 BITS
MEMORIA 100 x 14 BITS
DATA REGISTER
REGISTRO DATI
SEPARATORE I/O BUFFER
CLOCK OSCILLATOR
OSCILLATORE DI CLOCK
RC-5 DATA
VACK
DATA
CLOCK
DLEN
DLIM
SILT
AFC ON
AFC-ON
Fup
Fdown
FIN
AGC-OFF
READ WRITE ERASE
VUHF
VVHFb
VVHFa
12V-VUHF
12V-VVHF b
12V-VVHF a
VCR (PROG. 0=12V)
I-II
AFC
V-Vari
0.5-28V
min.-1.7V max.-9.6V
min.-0.9V max.-3.4V
min.-1.3V max.-5V
2.3V
5.9V
5.2V
4V
19V
7V
TS26 BC548
TS105 BC558
TS45 BC548
TS42 BC548
TS50 BC548
TS30 BC548C
TS31 BC548C
TS87 BC558
TS40 BC558
TS19 BC558
TS63 BC548
TS16 BC548
TS15 BC558
TS84 BC548C
TS191 BC558
TS190 BC548
TS110 BC548B
TS90 BC548C
TS154 BC547A
TS150 BC557
D20 BA317
D21 BA317
D22 BA317
D23 BA317
D24 BA317
D25 BA317
D26 BA317
D27 BA317
D64 BA317
D65 BA317
D153 BA317
D4 BA317
D3 BA317
D45 BA317
D31 BAV21
D30 ZTE3.9
D35 BAS11
D37 BZX79 B5V6
D86 BZX79 B5V6
D15 BA317
D66 BZX79 B6V8
D19 BA317
D38 BA317
D88 BA317
D89 BZX79 B6V2
D90 BA221
D3 CQW12
D4 CQW10
D1 CQW10
S21
S20 12µ
S9 12µ
S10 12µ
S11 12µ
S12 12µ
S14 12µ
S13 12µ
S4 12µ
S134 12µ
S107 12µ
S15
S104
KT1 6MHz
G 6MHz
G 400kHz
A&T CLOCK
:5
tm
2F33
4F33
3F33
5F33
1F33
2F34
1F34
6F33
fo 256
AFC OFF
V27
* OPTIONAL
A+C+D
28 302 F12

U42
TRD IV 90 PANEL

MONO PANEL CHASSIS K35

U2
MAINS
MODULE

U7
STEREO
DECODER

U18
U6 VHF
U8 UHF

U10
R-G-B
MODULE

U34
IR RECEIVER

U44
DISPLAY
PANEL

U45
LOCAL
KEYBOARD

U1
PICTURE
TUBE
PANEL

B90

R-C
UNIT

U9
DEFLECTION

DEGAUSSING

U82
AUXILIARY
POWER
SUPPLY

U104
STEREO SOUND
OUTPUT

U40
VARIABLE
LEVEL
PANEL

U41
HEADPHONE
PANEL

28 981 E12

U2 MAINS RECTIFIER

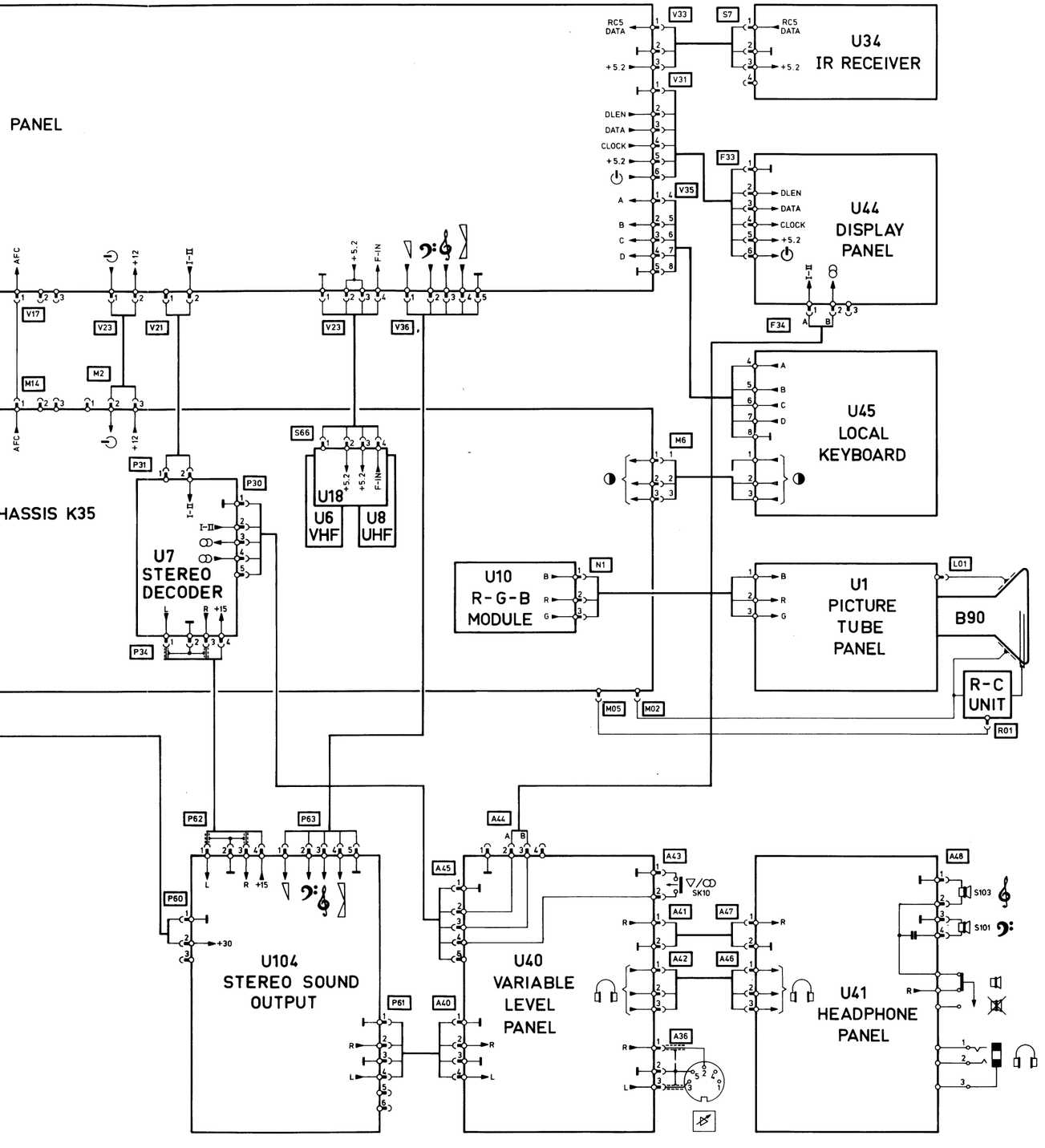
BY227
BYV95B
BZX79/C12

S292
S301

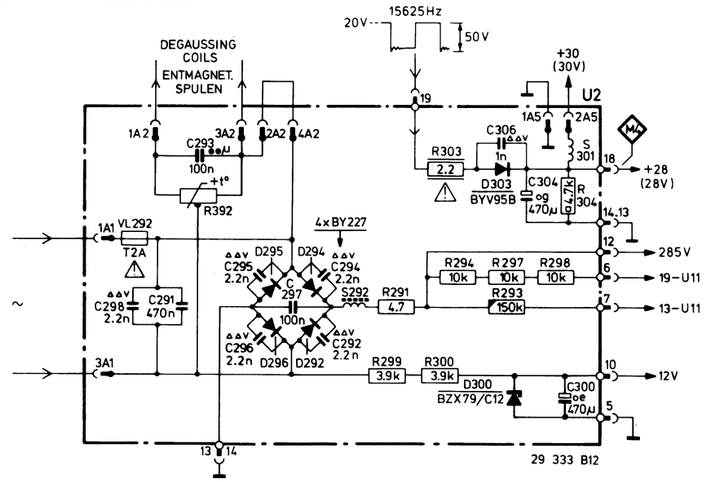
3p
4p

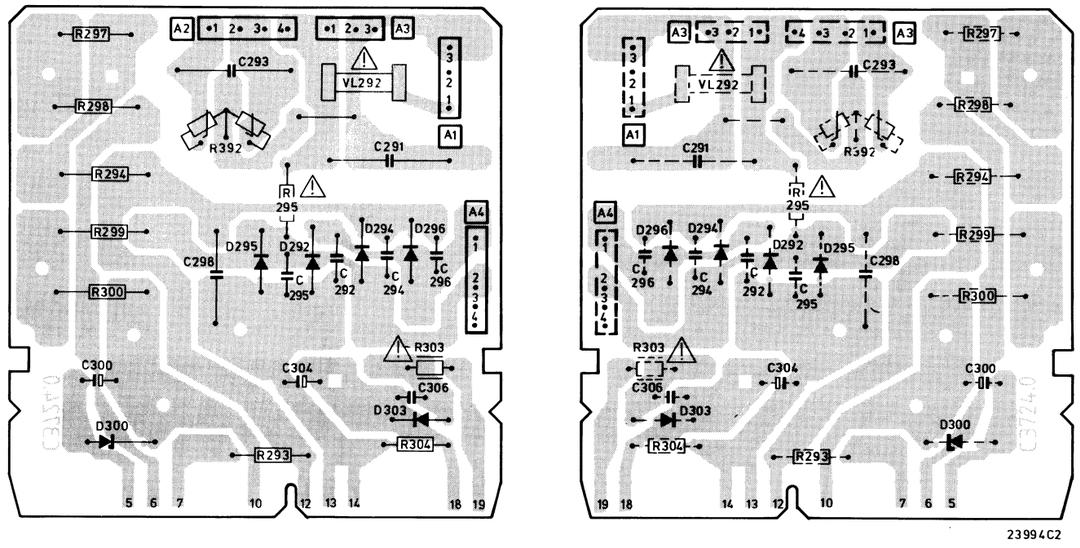
VL291 T2A
VL292 T2A

CS 82 264



U2 MAINS RECTIFIER 4822 212 21177





BY227		4822 130 34633
BYV95B		4822 130 41486
BZX79/C12		4822 130 34197
S292		4822 157 50772
S301		4822 158 10082
3p		4822 265 30121
4p		4822 265 30119
VL291	T2A	4822 253 30025
VL292	T2A	4822 253 30025

C291	470 nF - 275 V	4822 121 40517
R303	2.2 Ω - 0.125 W	4822 111 30437
R291	4.7 Ω - 4 W	4822 113 80224
R292	PTC	4822 116 40025
R294	10 kΩ - 2.5 W	5322 116 54989
R297	10 kΩ - 2.5 W	5322 116 54989
R298	10 kΩ - 2.5 W	5322 116 54989
R299	3.9K - 0.5 W	4822 116 51153
R300	3.9K - 0.5 W	4822 116 51153

U42 TRD IV-90 PANEL

IC20	UPD8049C-163	4822 209 10171
IC93	SAB3034	4822 209 10169
IC99	TL061GCP-00	4822 209 80963
BA220		4822 130 34221
BA221		4822 130 30831
BA317		4822 130 30847
BAS11		4822 130 41273
BC547A		4822 130 41019
BC548		4822 130 40938
BC548A		4822 130 40948
BC548B		4822 130 40937
BC548C		4822 130 44196
BC557		4822 130 44256
BC558		4822 130 40941
BC558C		4822 130 44197
BZX79/B5V6		4822 130 34173
BZX79/B6V2		4822 130 34167
BZX79/B6V8		4822 130 34278
BZX79/B22		4822 130 34441
BAV21		4822 130 30842
R35	560 Ω - 1.6 W	4822 116 51106
R114	10 kΩ - 0.4 W	4822 116 51253
R115	2.2 kΩ - 0.4 W	4822 116 51245
R117	39 kΩ - 0.4 W	4822 116 51262
S21		4822 157 50943
S113		4822 157 50943
S134		4822 157 50943
U4		4822 212 21227
U5		4822 212 21228
U15		4822 212 21226
KT1	6 MHz	5322 242 74364

U45 LOCAL KEYBOARD 4822 276 80238

1N4148		4822 130 30621
R26	22 kΩ	5322 100 10118
Switch	(8x)	4822 276 10799

U82 AUX. SUPPLY 4822 212 21255

IC5	L7805CV	4822 209 80817
1N4003GP		4822 130 31545
VL1	T1A	4822 253 30021
R2	100 Ω	4822 100 10075
T1		4822 145 30253

U44 DISPLAY PANEL 4822 212 21445

U1		4822 212 21165
CQW10		4822 130 31512
CQW11		4822 130 31679
CQW12		4822 130 31513

U7 STEREO DECODER 4822 212 21261

IC1-IC2	TBA120AS	4822 209 80357
BA317		4822 130 30847
BC548		4822 130 40938
BC548C		4822 130 44196
BC558		4822 130 40941
BZX79/B4V7		4822 130 34174
BZX79/B8V2		4822 130 34382
U1	Stereo matrix	4822 212 21258
U2	Stereo identification	4822 212 21069
R5	Potm. 1 kΩ	4822 100 10037
R8	Potm. 220 Ω	4822 100 10019
C33	820 pF - 250 V	5322 121 54072
S1		4822 156 20802
S2		4822 156 20995
S3		4822 156 20995
S4		4822 156 10579
S5		4822 156 10579
S6		4822 156 20995
S7		4822 156 20995
S8		4822 156 20925

U40 VARIABLE PANEL 4822 212 21347

T1		4822 140 60233

U104 STEREO SOUND OUTPUT 4822 212 21237

IC1	TCA730A	4822 209 80806
IC3	TCA740A	4822 209 80807
IC101	TDA2020AD2	4822 209 80645
IC102	TDA2020AD2	4822 209 80645
IC141	MC7815CT	4822 209 80808
BA317		4822 130 30847
BC558B		4822 130 44197
1N4001		4822 130 31438
R115	1 Ω - 0.33 W	4822 111 30483
R116	1 Ω - 0.33 W	4822 111 30483
R1	47 kΩ - 0.4 W	4822 116 51295
R2	47 kΩ - 0.4 W	4822 116 51295
R3	47 kΩ - 0.4 W	4822 116 51295
R4	47 kΩ - 0.4 W	4822 116 51295
R101	100 kΩ - 0.4 W	4822 116 51268
R102	100 kΩ - 0.4 W	4822 116 51268
R107	9.1 kΩ - 0.4 W	4822 116 51323
R108	9.1 kΩ - 0.4 W	4822 116 51323
R113	120 kΩ - 0.4 W	4822 116 51336
R114	120 kΩ - 0.4 W	4822 116 51336
C7	1.8 nF - 160 V	4822 121 41387
C8	1.8 nF - 160 V	4822 121 41387
C9	1.8 nF - 160 V	4822 121 41387
C10	1.8 nF - 160 V	4822 121 41387

U41 HEADPHONE PANEL 4822 212 21422

Headphone socket with switch	4822 267 10093

-MISCELLANE

2p
3p
4p
5p
6p
7p
1p
2p
3p
4p
5p
6p
7p

IC

8p
14p
16p
18p
24p
28p
40p

MODULES

S101	AD449
S103	AD203
U2	Mains
U3	Coax a
U4	Chann
U5	IF mod U342L
U5	IF mod
U6	Chann
U7	Stereo
U8	Chann
U9	Chrom
U10	R.G.B.
U11	Supply
U12	Sync.
U18	Presca
U34	IR-rec
U40	Variab
U41	Headp
U44	Displa
U45	Local
U47	Adapte
U82	Aux. s
U101	PAL/S
U104	Stereo
U430	Y-auto

4822 276 80238

4822 130 30621	
5322 100 10118	
4822 276 10799	

4822 212 21255

4822 209 80817	
4822 130 31545	
4822 253 30021	
4822 100 10075	
4822 145 30253	

4822 212 21445

4822 212 21165	
4822 130 31512	
4822 130 31679	
4822 130 31513	

U7 STEREO DECODER 4822 212 21261

IC1-IC2	TBA120AS	4822 209 80357
BA317		4822 130 30847
BC548		4822 130 40938
BC548C		4822 130 44196
BC558		4822 130 40941
BZX79/B4V7		4822 130 34174
BZX79/B8V2		4822 130 34382
U1	Stereo matrix	4822 212 21258
U2	Stereo identification	4822 212 21069
R5	Potm. 1 kΩ	4822 100 10037
R8	Potm. 220 Ω	4822 100 10019
C33	820 pF - 250 V	5322 121 54072
S1		4822 156 20802
S2		4822 156 20995
S3		4822 156 20995
S4		4822 156 10579
S5		4822 156 10579
S6		4822 156 20995
S7		4822 156 20995
S8		4822 156 20925

U40 VARIABLE PANEL 4822 212 21347

T1	4822 140 60233

U104 STEREO SOUND OUTPUT 4822 212 21237

IC1	TCA730A	4822 209 80806
IC3	TCA740A	4822 209 80807
IC101	TDA2020AD2	4822 209 80645
IC102	TDA2020AD2	4822 209 80645
IC141	MC7815CT	4822 209 80808
BA317		4822 130 30847
BC558B		4822 130 44197
1N4001		4822 130 31438
R115	1 Ω - 0.33 W	4822 111 30483
R116	1 Ω - 0.33 W	4822 111 30483
R1	47 kΩ - 0.4 W	4822 116 51295
R2	47 kΩ - 0.4 W	4822 116 51295
R3	47 kΩ - 0.4 W	4822 116 51295
R4	47 kΩ - 0.4 W	4822 116 51295
R101	100 kΩ - 0.4 W	4822 116 51268
R102	100 kΩ - 0.4 W	4822 116 51268
R107	9.1 kΩ - 0.4 W	4822 116 51323
R108	9.1 kΩ - 0.4 W	4822 116 51323
R113	120 kΩ - 0.4 W	4822 116 51336
R114	120 kΩ - 0.4 W	4822 116 51336
C7	1.8 nF - 160 V	4822 121 41387
C8	1.8 nF - 160 V	4822 121 41387
C9	1.8 nF - 160 V	4822 121 41387
C10	1.8 nF - 160 V	4822 121 41387

U41 HEADPHONE PANEL 4822 212 21422

Headphone socket with switch	4822 267 10093

-MISCELLANEOUS-

2p	4822 265 20172
3p	4822 265 30121
4p	4822 265 30119
5p	4822 267 40247
6p	4822 265 30117
7p	4822 265 40119
1p	4822 266 20063
2p	4822 266 20073
3p	4822 266 30071
4p	4822 266 30072
5p	4822 266 30075
6p	4822 266 30073
7p	4822 266 40057

IC

8p	4822 255 40164
14p	4822 255 40136
16p	5322 255 44185
18p	4822 255 40239
24p	4822 267 70094
28p	5322 255 44047
40p	4822 255 40129

MODULES

S101	AD44900/P15	4822 240 40138
S103	AD20310/T15	4822 240 70086
U2	Mains module	4822 212 21177
U3	Coax assy	4822 267 10089
U4	Channel selector UV414	4822 210 40234
U5	IF module for V334LO/ U342LO	4822 212 21349
U5	IF module for UV414	4822 212 21526
U6	Channel selector V334LO	4822 210 40192
U7	Stereo decoder	4822 212 21261
U8	Channel selector U342LO	4822 210 50109
U9	Chrom./lum. module	4822 212 21149
U10	R.G.B. module	4822 212 20616
U11	Supply driver module	4822 212 21114
U12	Sync. module	4822 212 21164
U18	Prescaler module	4822 212 21286
U34	IR-receiver	4822 212 20753
U40	Variable level panel	4822 212 21347
U41	Headphone panel	4822 212 21422
U44	Display panel	4822 212 21445
U45	Local keyboard	4822 276 80238
U47	Adapter panel (/42)	4822 212 21192
U82	Aux. supply	4822 212 21255
U101	PAL/SECAM module (/42)	4822 212 20694
U104	Stereo sound output	4822 212 21237
U430	Y-automatic (/42)	4822 212 20695